

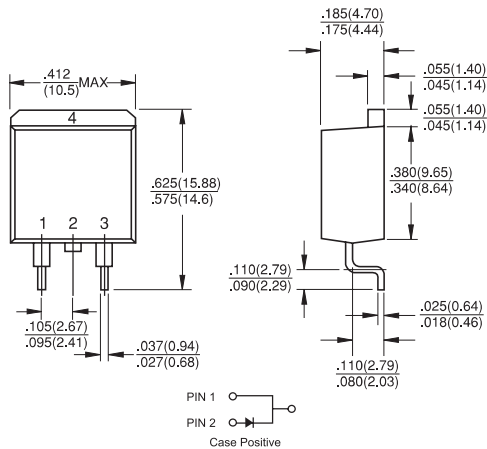


<div><div>TSC</div><div></div></div>	<div>SFAS801G THRU SFAS808G</div> <div>8.0 AMPS. Glass Passivated Super Fast Rectifiers</div>											
<div></div>	<div>Voltage Range</div> <div>50 to 600 Volts</div> <div>Current</div> <div>8.0 Amperes</div>											
<div>Features</div> <div><div>◇ Low forward voltage drop</div><div>◇ High current capability</div><div>◇ High reliability</div><div>◇ High surge current capability</div></div>	<div>D<sup>2</sup>PAK</div> <div></div> <div>Dimensions in inches and (millimeters)</div>											
<div>Mechanical Data</div> <div><div>◇ Cases: D<sup>2</sup>PAK Molded plastic</div><div>◇ Epoxy: UL 94V-O rate flame retardant</div><div>◇ Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed</div><div>◇ Polarity: As marked</div><div>◇ High temperature soldering guaranteed: 260°C/10 seconds/.16", (4.06mm) from case.</div><div>◇ Weight: 2.24 grams</div></div>												
<div>Maximum Ratings and Electrical Characteristics</div> <div>Rating at 25°C ambient temperature unless otherwise specified.</div> <div>Single phase, half wave, 60 Hz, resistive or inductive load.</div> <div>For capacitive load, derate current by 20%</div>												
Type Number	Symbol	SFAS 801G	SFAS 802G	SFAS 803G	SFAS 804G	SFAS 805G	SFAS 806G	SFAS 807G	SFAS 808G	Units		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V		
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V		
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V		
Maximum Average Forward Rectified Current @T <sub>C</sub> = 100°C	I <sub>(AV)</sub>	8.0									A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	I <sub>FSM</sub>	125									A	
Maximum Instantaneous Forward Voltage @ 8.0A	V <sub>F</sub>	0.975			1.3			1.7			V	
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	I <sub>R</sub>	10 400									uA uA	
Maximum Reverse Recovery Time(Note1)	T <sub>rr</sub>	35									nS	
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	80			60						pF	
Typical Thermal Resistance (Note 3)	Rθ <sub>JC</sub>	2.2									°C/W	
Operating Temperature Range	T <sub>J</sub>	-65 to +150									°C	
Storage Temperature Range	T <sub>STG</sub>	-65 to +150									°C	

Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$   
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
 3. Thermal Resistance from Junction to Case.

## RATINGS AND CHARACTERISTIC CURVES (SFAS801G THRU SFAS808G)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

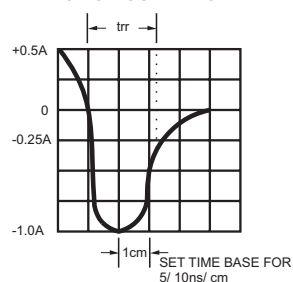
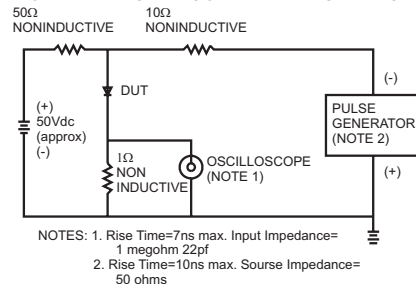


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

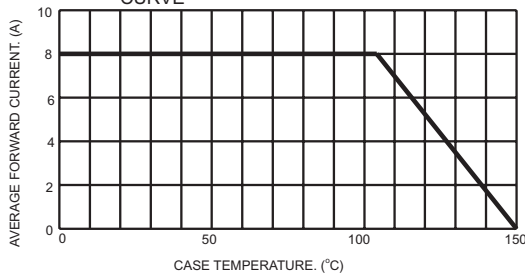


FIG.3- TYPICAL REVERSE CHARACTERISTICS

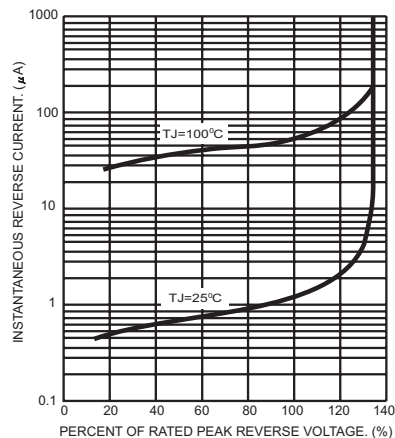


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

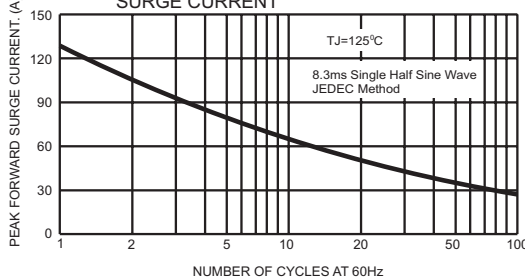


FIG.6- TYPICAL FORWARD CHARACTERISTICS

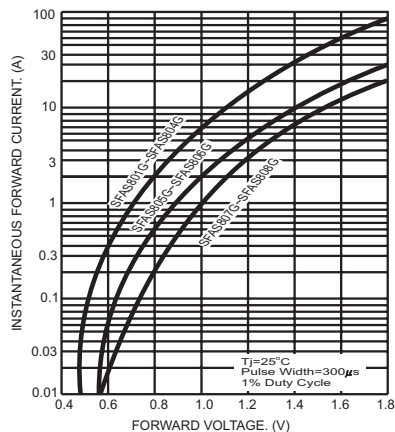


FIG.5- TYPICAL JUNCTION CAPACITANCE

